PHENIX Technical Support 2006

PHENIX
WEEKLY PLANNING

2/2/06

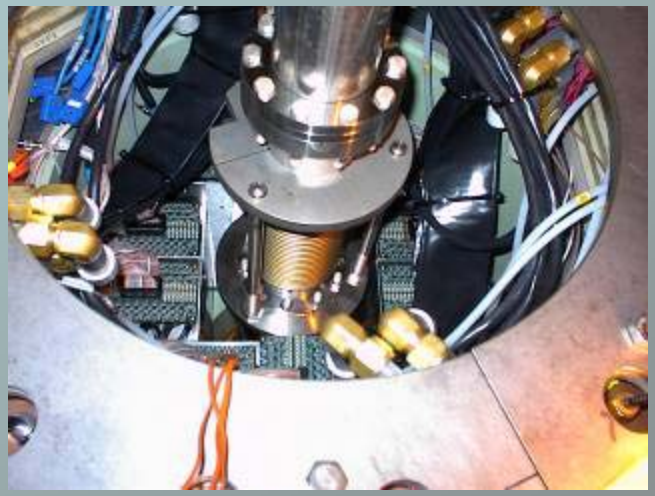
Don Lynch

PHENIX

PHENIX Technical Support 2006

Prep Schedule for Run 6

- BBC N&S dried, tested re-installed, final tested **[DONE]**
- MuTr FEE and anode purge lines dried **[DONE]**
- MuTr HV & LV repairs and tests **[DONE]**
- Install Lampshades on MMS **[DONE]**
- Receive MPC South **(Received 1/8/06)**
- Prepare EC for move to IR (carpenters) **[DONE]**
- Re-install seismic restraints on WC **[DONE]**
- Prepare MPC South (install LED's, bench elec. tests) **[DONE]**
- Uninstall TOF West Installation platform **[DONE]**
- Install MPC South **[DONE]**
- Install HBD rack (lower only) **[TODAY]**
- Move MUID collar to IR **[DONE]**
- Install MPC cable tray **[DONE]**



PHENIX

PHENIX Technical Support 2006

Prep Schedule for Run 6

- Remove upper HBD I-beams, use fg unistrut for now **[DONE]**
- EC roll in Carpenters to do platforms **[DONE]**
- Pink sheets **[DONE]**
- MPC South installation **[DONE]**
- CM area sweep for magnet test **[DONE]**
- Magnet tests **[DONE]**
- Continue blue sheets **[DONE]**
- Connect EC Services **[DONE]**
- Install shield wall **[DONE]**
- DC repairs **[DONE]**
- Move MMS North
- Install MUID collar
- Fabricate BLM Test Diode holders
- Fabricate RXNP Mag Test Fixture
- Complete CM area HBD plumbing **[DONE]**

PHENIX

PHENIX Technical Support 2006

Prep Schedule for Run 6

Week of Feb. 6 – Feb. 10, 2006

- RXNP magnet tests
- Install plug door
- Start of PHENIX watch shifts
- Start flammable gas flow
- Blue ring ready for beam Feb. 6, limited IR access
- All up commissioning
- Start of Run Party

Week of Feb. 13- Feb. 17, 2006

- Yellow ring ready for beam
- Install MPC electronics on eyebrow
- All up commissioning

Week of Feb. 21 – Feb. 24, 2006 (Pres. Day Holiday 1/20/06)

- Install Beam Loss Monitor
- Start of run shifts

Week of Feb. 27 – Mar. 4

- Start physics runs

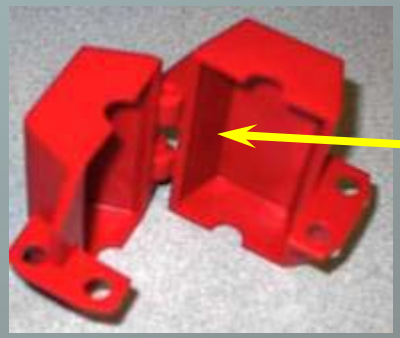
PHENIX

PHENIX Technical Support 2006

CM Lift Table Extensions

First extension received from Central Shops. Minor modification needed to mount rails. Otherwise works as planned. Was successfully used for DC repairs

Drift Chamber Repairs

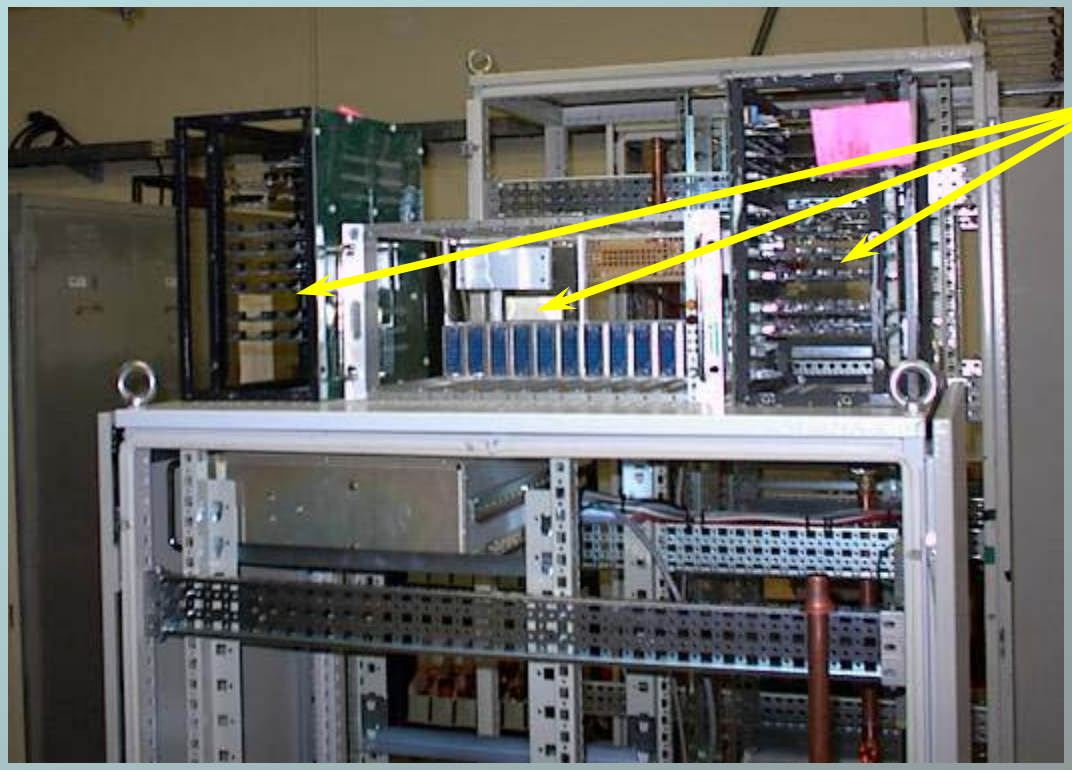


Plug lock for lift table. Table is to be operated by authorized techs only. To be locked out when BLM test fixture is installed.

PHENIX

PHENIX Technical Support 2006

MPC Installation



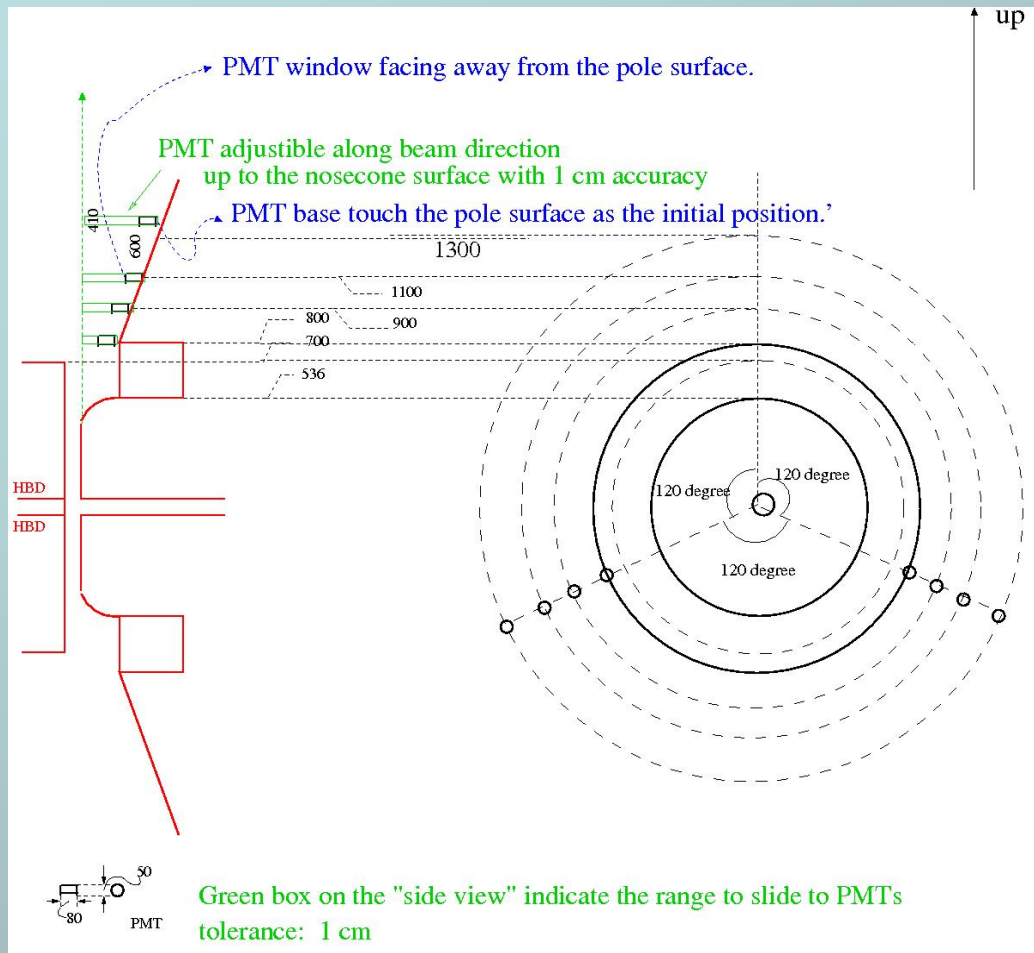
MPC electronics to be on top of MuTr rack on eyebrow

Electronics not ready yet

PHENIX

PHENIX Technical Support 2006

RXNP Magnet Field Tests



PMT radial position in south pole:

* 80, 90, 110, 130 cm
* 2 branch located at +/−120 degree relative to the UP direction

PMT radial position in North pole:

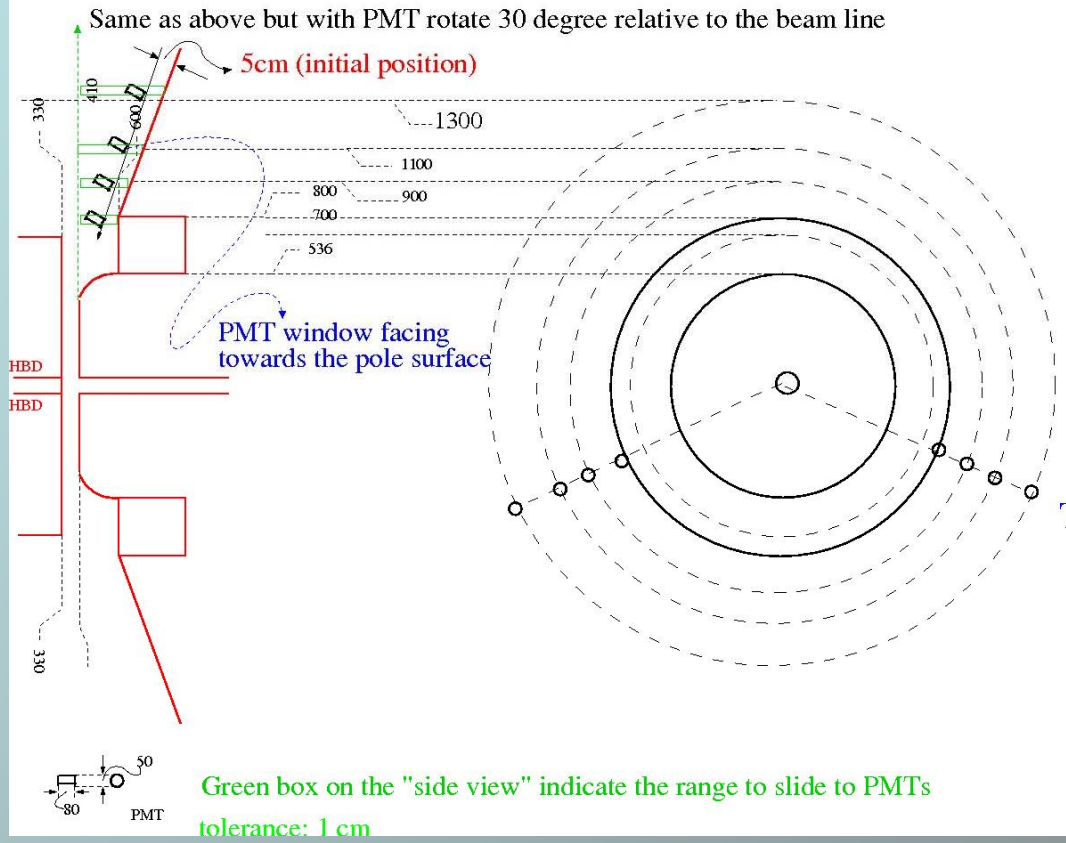
* 90, 110, 130 cm
* 2 branch located at +/−120 degree relative to the UP direction

The plot on the left is an illustration for south

PHENIX

PHENIX Technical Support 2006

RXNP Magnet Field Tests



Green box on the "side view" indicate the range to slide to PMTs

tolerance: 1 cm

PMT radial position in south pole:

* 80, 90, 110, 130 cm
* 2 branch located at +/−120 degree relative to the UP direction

PMT radial position in North pole:

* 90, 110, 130 cm
* 2 branch located at +/−120 degree relative to the UP direction

The plot on the left is an illustration for south

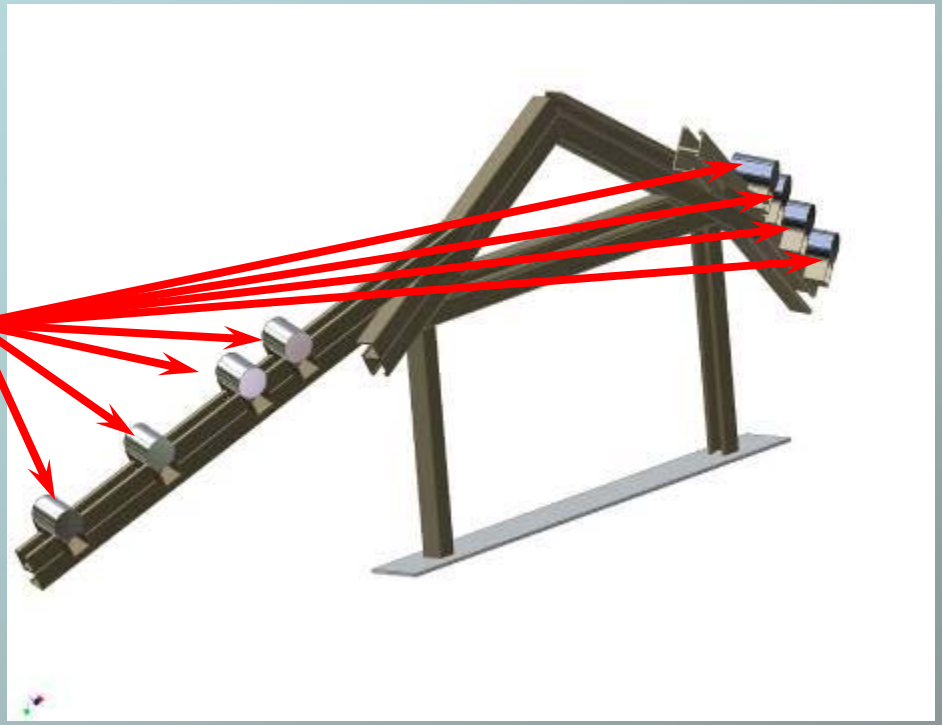
PHENIX

PHENIX Technical Support 2006

RXNP Magnet Field Tests

Made from fiberglas unistrut with precision cut angles. To be supported from lower HBD I-beams

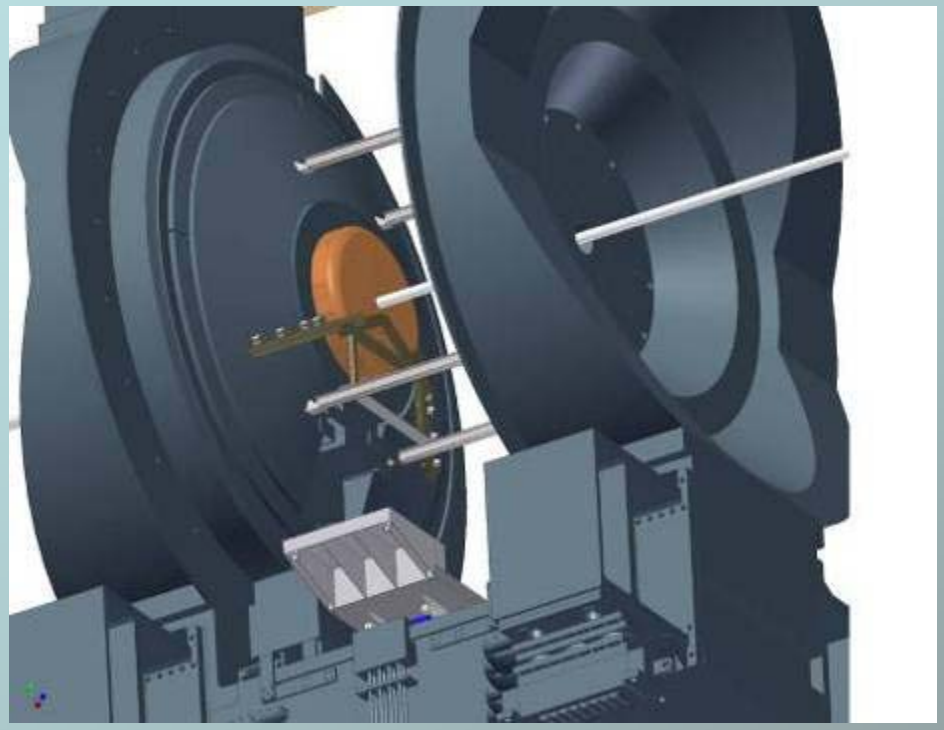
PMT's

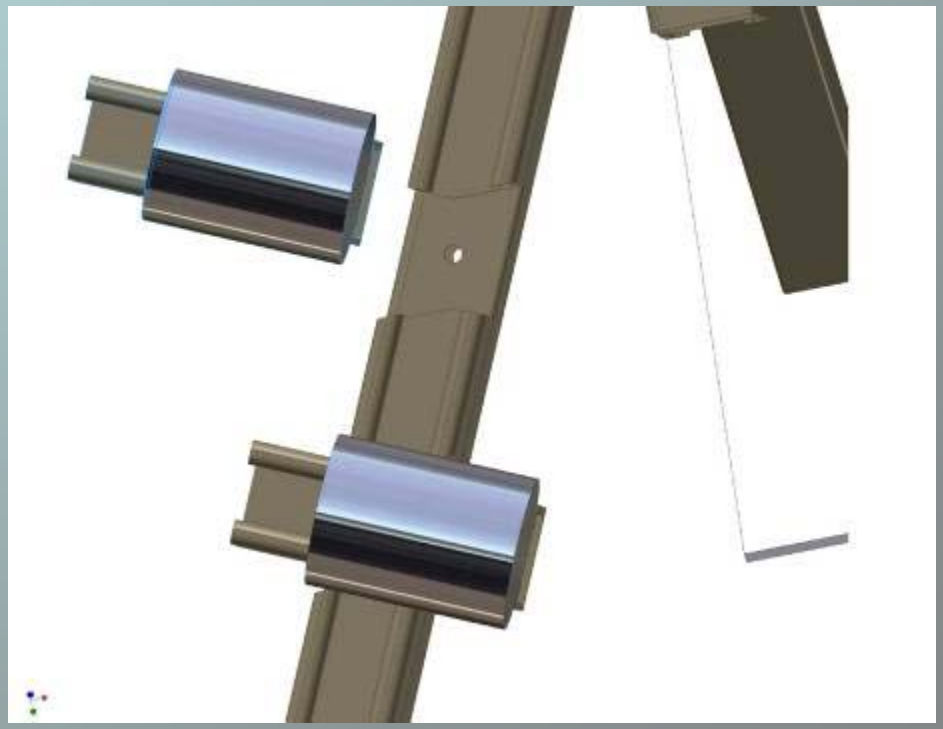


PHENIX

PHENIX Technical Support 2006

RXNP Magnet Field Tests



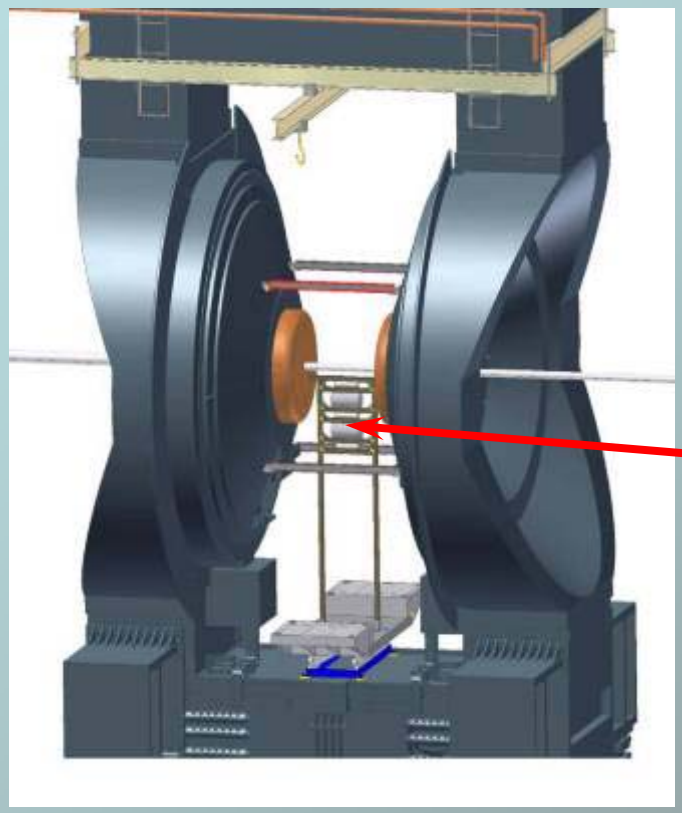


Installation

PHENIX

PHENIX Technical Support 2006

Beam Loss Monitors



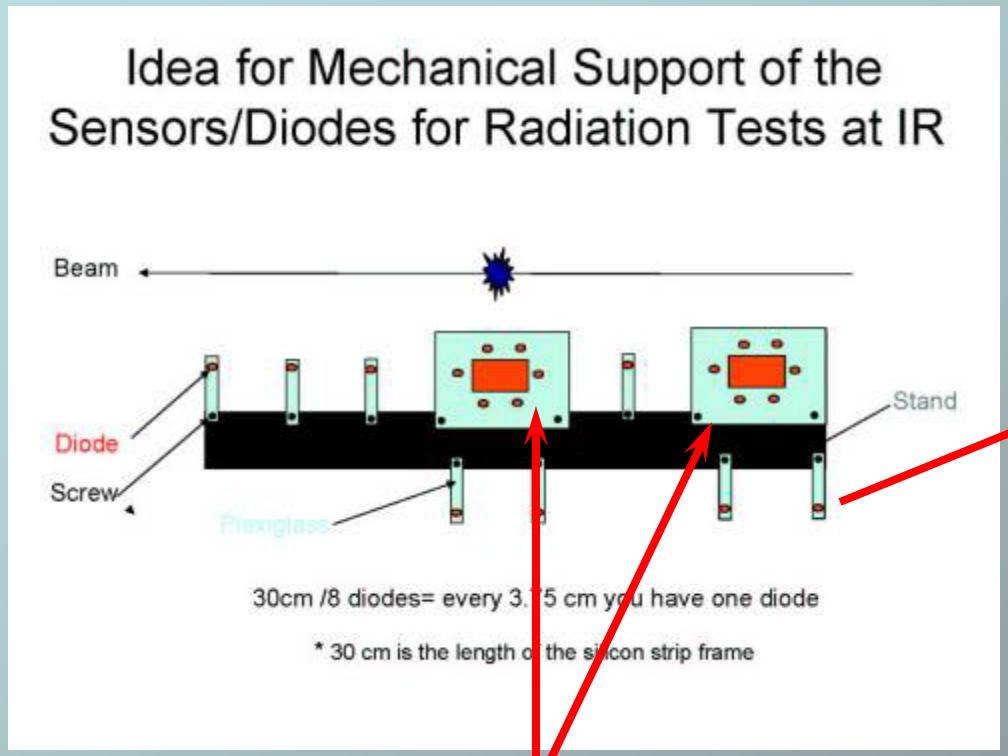
Stripixel sensors and diodes go on this surface

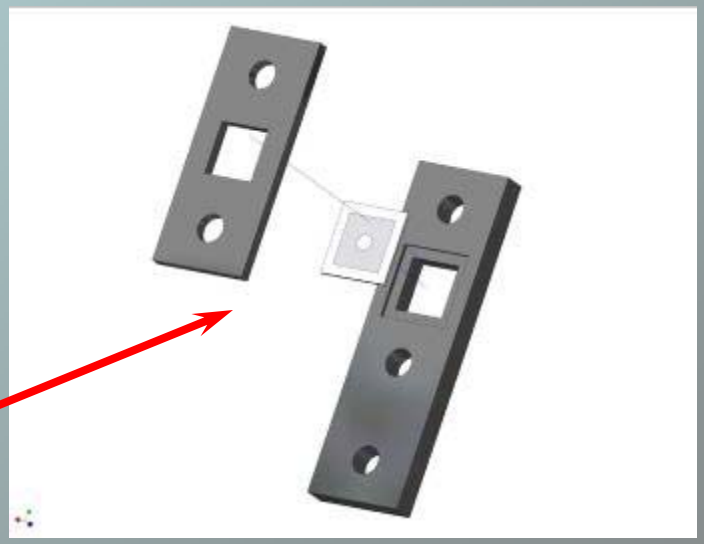
BLM Stand with BLM's and Chipmunks

PHENIX

PHENIX Technical Support 2006

Beam Loss Monitors





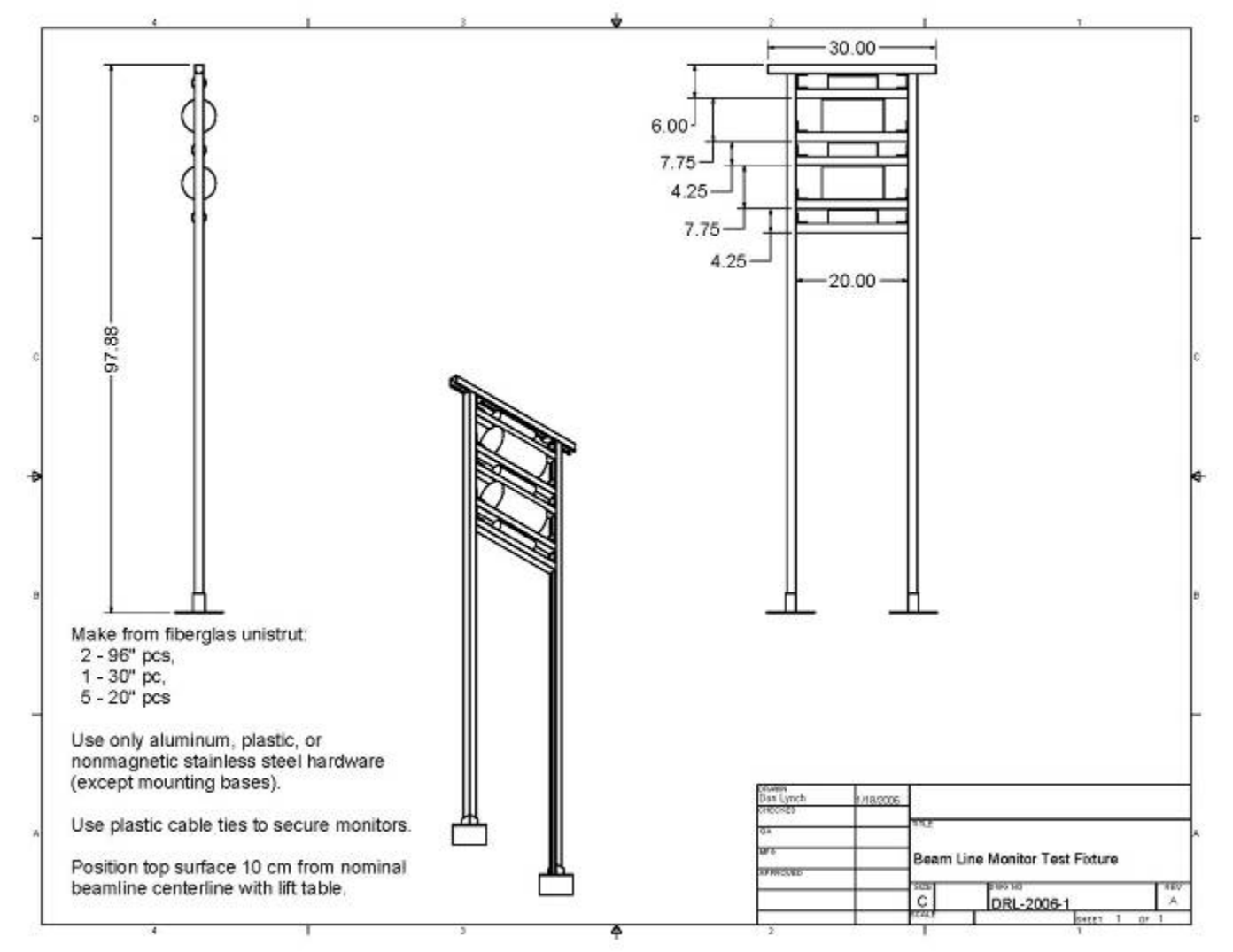
Need to make holders for diodes. 2 size diodes 8 of each for test.

Bare stripixel sensors (2)

PHENIX

PHENIX Technical Support 2006

Revised BLM support design



PHENIX

PHENIX Technical Support 2006

Other Projects

TOF West

- No further work until next shutdown

HBD

- All gas work inside IR to be completed prior to end of shutdown
- Will need new He bags?
- Plan for installation of ½ final detector late in run 6 using lower rack only
- Plan B – install prototype during run 6
- Need to design & fabricate cable support structure for prototype and final design

Bridge Utilities

- No water until next summer. Shutoff valves to be closed and posted until manifolds are tested

MPC North

- New enclosure & fixture design to be based on lessons learned from south installation

RXNP

- No design info yet?

PHENIX

PHENIX Technical Support 2006

HBD Electronics

HBD low voltage and signal electronics rack (installed on east-central pedestal)

HBD High Voltage Rack (to be located on Bridge)

PHENIX

PHENIX Technical Support 2006

HBD Gas Supply

HBD transparency monitor hutch ready to install instrumentation when it arrives

TOF/HBD Gas Shared Flow Control Rack HBD to be single pass for Run 6

Electronics rack In Gas Mixing House

PHENIX

PHENIX Technical Support 2006

HBD Gas Supply

Gas Pad Location for CF4 bottles

HBD Gas flow panel Installed. HBD in and out lines are short circuited and now flowing Argon to maintain cleanliness.

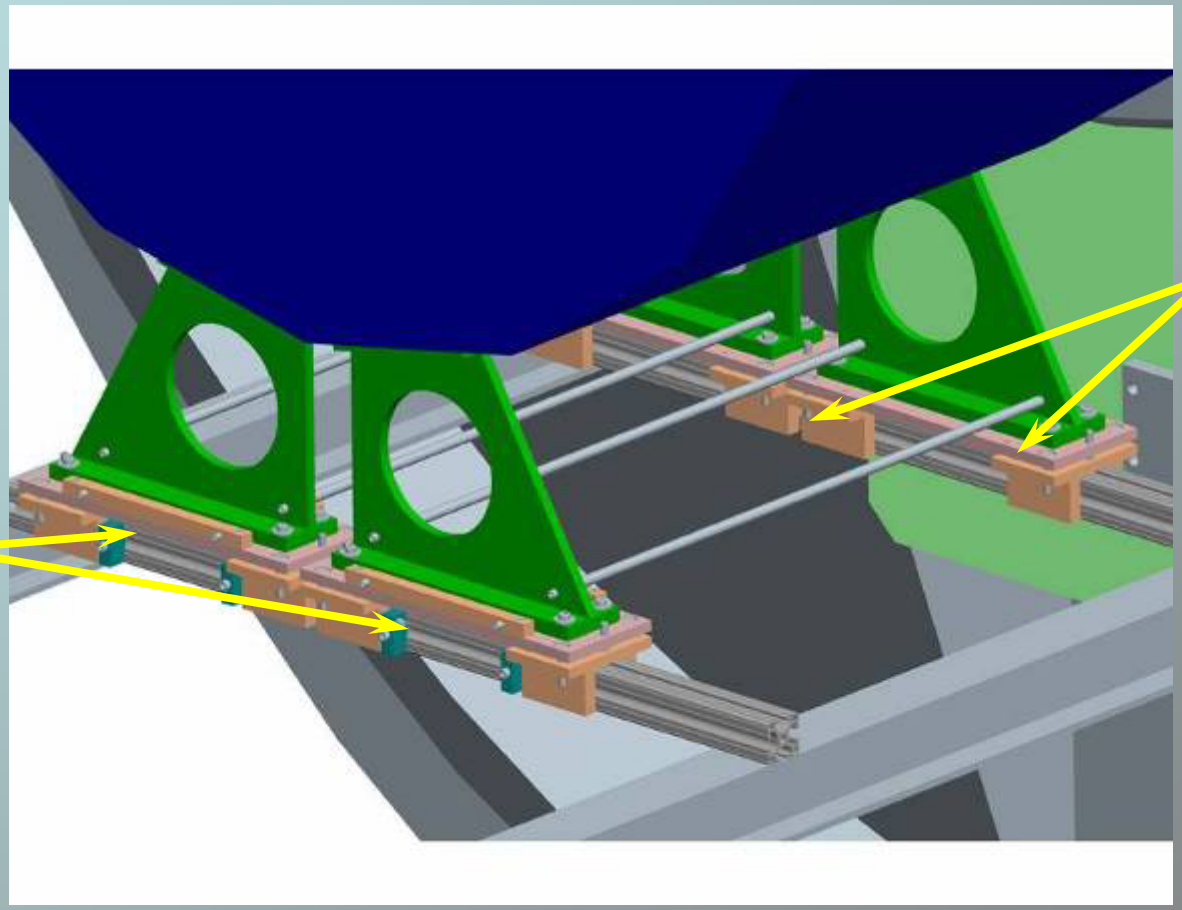
Piping in IR complete. Flexible lines allow CM to move for maintenance

Stainless Gas Lines to top of CM

PHENIX

PHENIX Technical Support 2006

HBD
Mechanical Support



HBD Support
X, Y, Z
adjustments on
this side

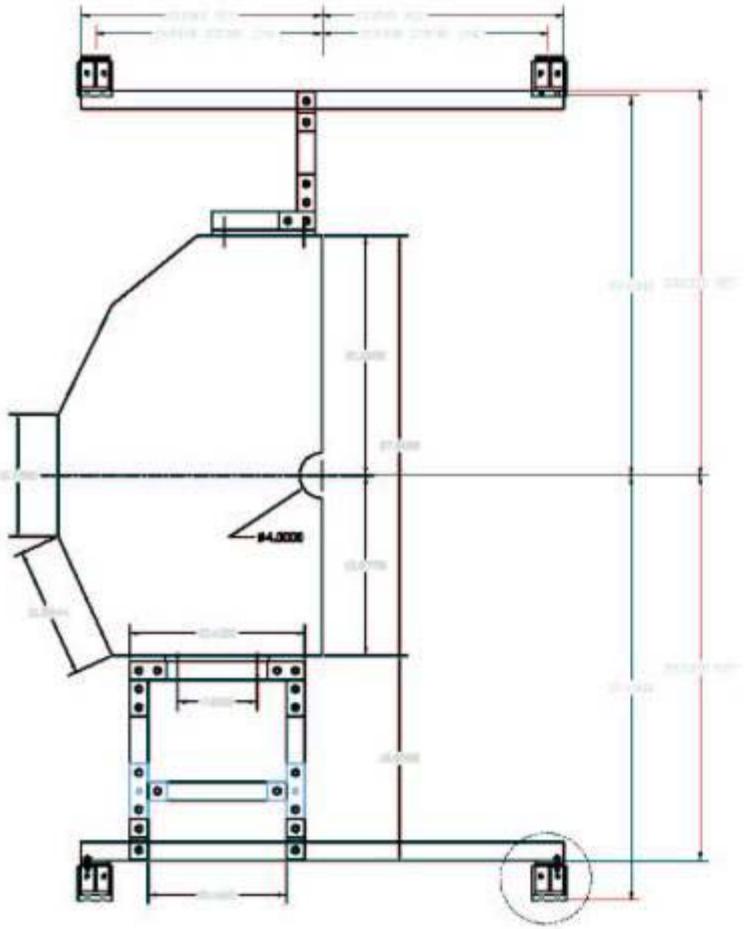
HBD Support
X, Y
adjustments on
this side

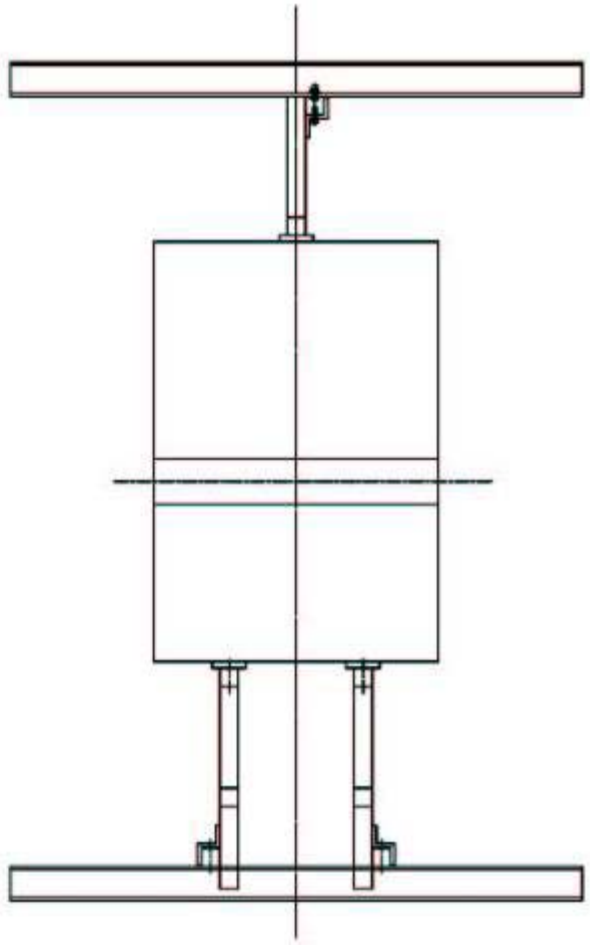
Design of details complete ready for fabrication. Last minute changes to HBD mounting interface to be addressed before routing drawings to shops for fabrication.

PHENIX

PHENIX Technical Support 2006

HBD Prototype Mounting





Prototype can not use final design mounting due to differences in location of connectors and other basic design differences.

Final HBD design is not yet fixed.

Prototype mounting to be fabricated from fg unistrut.

PHENIX

PHENIX Technical Support 2006

LN_2 Storage Dewar for BBC

Acme Cryogenics 6000 Gallon vessel

23' long x 10'4" high, 7' wide footprint 219psig MAWP, we would set MOP to 125psig.
Original Mfr.:
Linde, NB #6363 ser.#206
Remanufactured by Chart

PHENIX

PHENIX Technical Support 2006

LN_2 Storage Dewar for BBC

LN_2 Vessel to go here

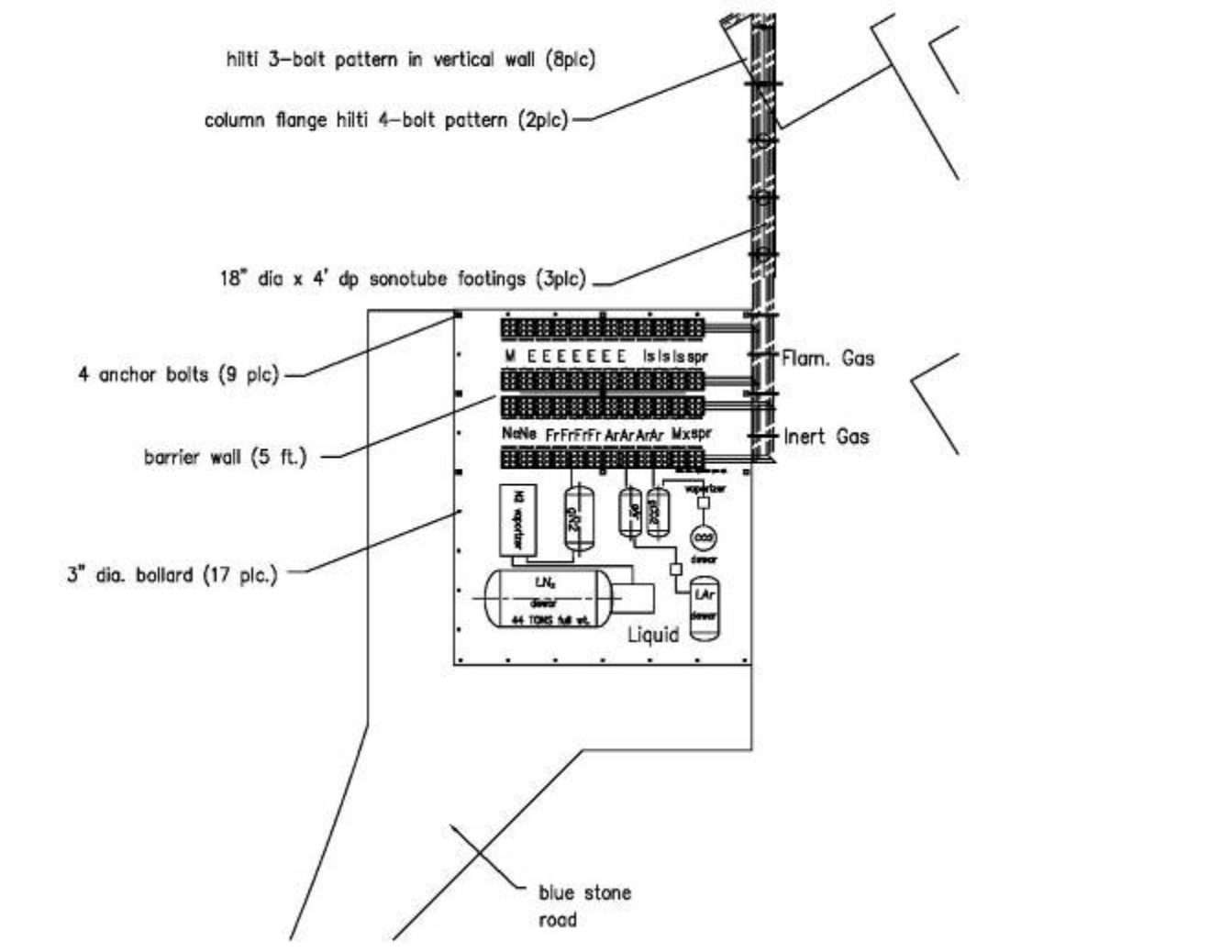
PHENIX

PHENIX Technical Support 2006

LN_2 Storage Dewar for BBC

Original Gas Pad Design ~1998. Access road shown was rerouted to north side of pad. Original design indicated 44 ton tank. Estimated weight of 6000 gallon tank 30 tons when full, 10 tons when empty.

Experimental safety review required.



PHENIX

PHENIX Technical Support 2006

C-A Tasks

Prior to Run 6

- Build Shielding wall
- Remaining blue sheets

Postponed Shutdown 2006

- Install access platforms from EC top north and MMS
- Replace emergency fan louvres
- Rewire/add IR ceiling lights on emergency power
- Replace WC sliding platform hoisting cables
- Analyze/balance rack water distribution
- Mixing house exhaust fan maintenance

PHENIX

PHENIX Technical Support 2006

PHENIX Engineering & Tech Support Web Pages

Links for weekly planning meeting slides, long term planning and other technical info can be found from the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

PHENIX